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Cantatory Paresis

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CANTATORY PARESIS.

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CANTATORY paresis is a variety of vocal disability experienced only in singing; the voice remaining good in all portions of the register utilized in ordinary conversation.

CLINICAL HISTORY.—After some unusual vocal effort or after some ordinary vocal effort during a period of debility, a singer's voice will begin to fail at some special note of the register. In some instances failure is limited to a single portion of the register. As determined by the researches of Langmaid (*The Medical Record*, May 26, 1883, p. 576) this will most likely occur at the ninth note in the scale in the key of C, for tenor and soprano voices; and at the seventh for base and contralto voices. In other instances all tones are uncertain above the one at which the break begins.

PATHOLOGY AND MORBID ANATOMY.—In some instances no pathological condition can be detected. In most cases there is a slight congestion of one or both vocal bands, which becomes more and more pronounced as the defective tone is approached in

singing the scale from below upward. In marked instances there may be a lack of due longitudinal tension of the vocal bands, so that the glottic orifice remains elliptic in its entire extent and does not close posteriorly as the voice rises in pitch. This is due to failure in the proper contraction of the thyro-arytenoid, lateral crico-arytenoid, and crico-thyroid muscles.

It is possible that undue strain may stretch, or tear, or otherwise impair some of the delicate muscular fibrillæ of the thyro-arytenoid muscles, so as to interfere with the adjustment of the vocal bands necessary to produce the tones at which failure occurs. This failure throws undue effort upon other muscles in the endeavor to secure the tension necessary for cantation; and this effort fatigues the muscles and produces atony with irregularity in contraction, and consequently in phonal vibration of the vocal bands.

SYMPTOMATOLOGY.—There is a lack in the precision of the tone as the point of failure in the scale is reached; and this is sometimes associated with an involuntary slide or a tremble. Prolonged effort, as in singing, is quite fatiguing and sometimes painful. The conversational voice remains unimpaired.

ETIOLOGY.—The most frequent cause is overfatigue of the intrinsic muscles of phonation, from undue exercise in forced efforts beyond those required in the ordinary adjustments of the vocal bands for the natural emission of the tones made. This may be due to prolonged effort under ordinary conditions of health, or to customary efforts made

during impaired conditions, whether physical or mental, or both. Faulty respiration in singing (Mandl, Paris, 1855) is, perhaps, the next most frequent cause.

DIAGNOSIS.—There is usually a lack of longitudinal tension of the vocal bands, and, in some instances, the bands are more or less undulatory in outline on their horizontal surfaces. The vocal bands are usually somewhat congested, in some instances with a pearlish translucence. In the absence of positive laryngoscopic evidence of atony, the character of the voice and the history of vocal fatigue remain the sole features in diagnosis.

PROGNOSIS.—The prognosis is good, provided that the voice be given proper rest and that suitable therapeutic measures be instituted. Should these precautions be neglected and the voice be continued in use, permanent injury may be sustained and the voice, for many months or even for a year or longer, may be rendered useless for singing purposes.

TREATMENT.—The first element in treatment is absolute rest of the singing voice and comparative rest of the conversational voice; that is to say, avoidance of all unnecessary use of the voice. The next point is attention to any impairment of the general health. Strychnine, quinine, and cocaine are the special medicinal agents most likely to be directly beneficial to the impaired muscles. Finally, systematic vocal exercises, limited to the unimpaired portion of the register, and daily percutaneous applications of currents of induction from one side of the larynx to the other will assist materially in over-

coming the muscular atony, and thus hasten restoration of the vocal powers. Great care should be exercised in resuming prolonged vocal efforts for a year or two after apparent cure has been effected, lest the condition recur in an aggravated form.

In cases of moderate disability it is possible so to arrange the music as to avoid using the tones in which the voice shows impairment (Langmaid).